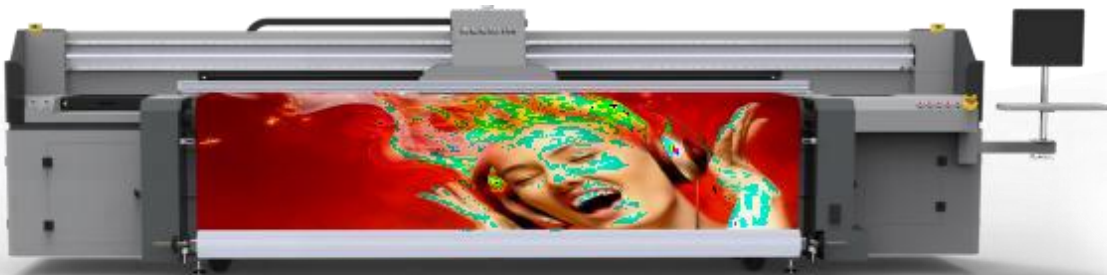


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# ALLWIN HB3200 hybrid User Manual

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# Chapter 1 Prepare of installation

## 1.1 AC Power requirement of machine

- A. Machine need 2 separately AC power, one for machine main power system, another for LED UV lamp system.

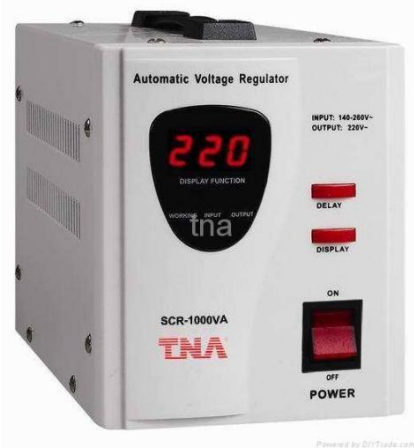
Machine main power: Single-phase electricity 220V AC 3.5KW/ 15A

LED UV lamp power: Single-phase electricity 220V AC 3.6KW/20A

Tips: AC electricity need good PE which resistance less than 50 ohm

- B. Machine AC power cables requirement, each wires in the cables at least 6mm<sup>2</sup> diameter. This avoid AC power cables get hotting when machine running.

- C. AC 220V 15KVA automatic voltage stabilizer needed for machine main power. This can help machine running not influence by power current fluctuation.



## 1.2 Air compressor requirement

Machine print table location pings function need stable air pressure: 0.7Mpa, rate of flow at least: 8L/ Min, 8mm diameter air tube



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Tips: Air compressor tank volume at least 8L with oil-water separator device , to ensure the air pressure stable and clear

### 1.3 Min Computer configuration

CPU: Intel i5 8500 or AMD R5 2600

Memory: 16 GB

Video Card: 2GB GPU Memory card

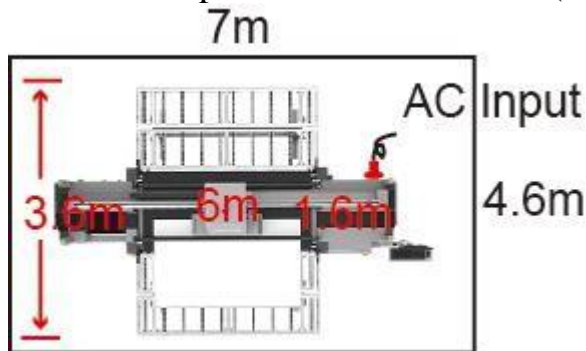
Storage: SSD 256GB+ 1TB HDD

Operating system: WIN10 64Bit / WIN7 64Bit

### 1.4 Environment Requirement

HB3200 Hybrid machine dimension: 5.97m\*1.6m\*1.64m

Min Room Space: 7m\* 4.6m\* 2.3m (width include 2 extend table )



Room temperature: 18 to 35 degrees

Room humidity: 35% to 65%

Machine need: dust free, without direct sunlight, not near air conditioner vents or heating source

### 1.5 Machine Operator requirement

Machine operator must familiar use computer, some knowledge of image design software, such as: Adobe Photoshop, Adobe Illustrator, CorelDraw.etc.



Operator must carefully use machine and responsibility for machine maintenance

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## 1.6 Inks and Spare parts notice

**Machine must use ALLWIN official UV inks and Spare parts, these can ensure machine print quality and print head lifetime.**

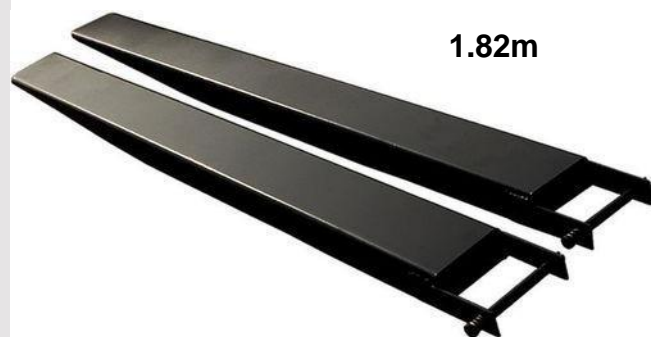
For machine repair or unknowing issues, please contact ALLWIN local distributor engineer or send email to ALLWIN factory.

## Chapter 2 Hardware installation

### 2.1 Unload & Open machine non-fumigation wooden box

A. Please check the machine non-fumigation wooden box broken or not before open it. If meet cargo damaged issue please contact your local forwarder person, they will help deal it and apply insurance compensation.

B. Please use professional device to unload and open wooden box. Suggest use 3 Tons forklift with 1.82m lifter arm. Mind the wooden box marked Front and Back



C. Please land the wooden box then open it

D. Use forklift land the machine on floor, then machine can move by Omni-directional wheels when pushing it.



Notice: 1. Before you move machine with the machine wheels, make sure all machine height adjustment legs not touch floor.  
2. If hard to move by Omni-directional wheels, try move to different directions to make the wheels get same directions then easy to move

## 2.2 Machine put to right place and leveling

Move machine to right place, adjust machine leveling with professional device, such as: spirit level, Laser horizontal instrument.etc



Notice: Please ensure the leveling again after 8 hours. (This will help ensure machine body 100% well leveling)

## 2.3 AC power connection

AC power cables which already with machine, Please ensure right connect order of the connector: L: RED N: Blue PE: Yellow& Green



L-N:AC220V~250V N-PE:0V L-PE:AC220V~250V  
M-

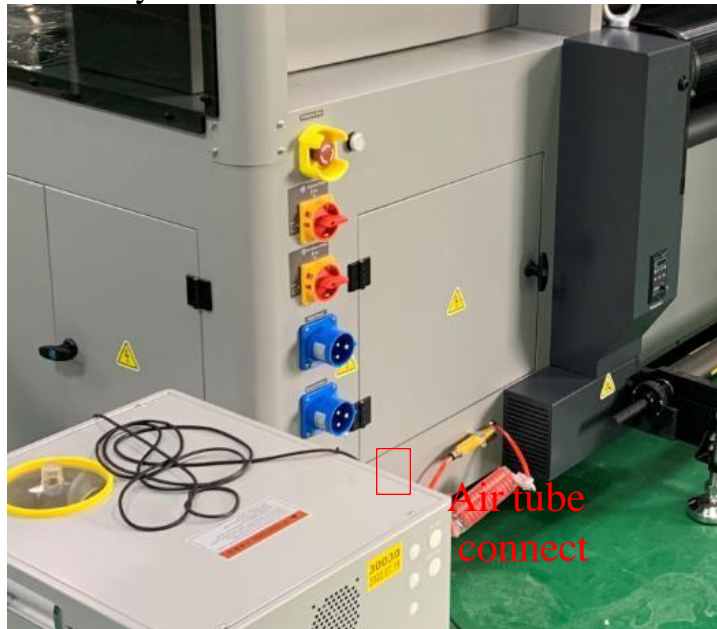
L with N: 220V AC, L with PE: 220V AC, L with PE: 0V AC  
(Ensure your PE/ earth wire working good)



Warning: Please use Multi-meter ensure AC 220V connecting right order after you contact it to local factory. Wrong order will damaged the machine

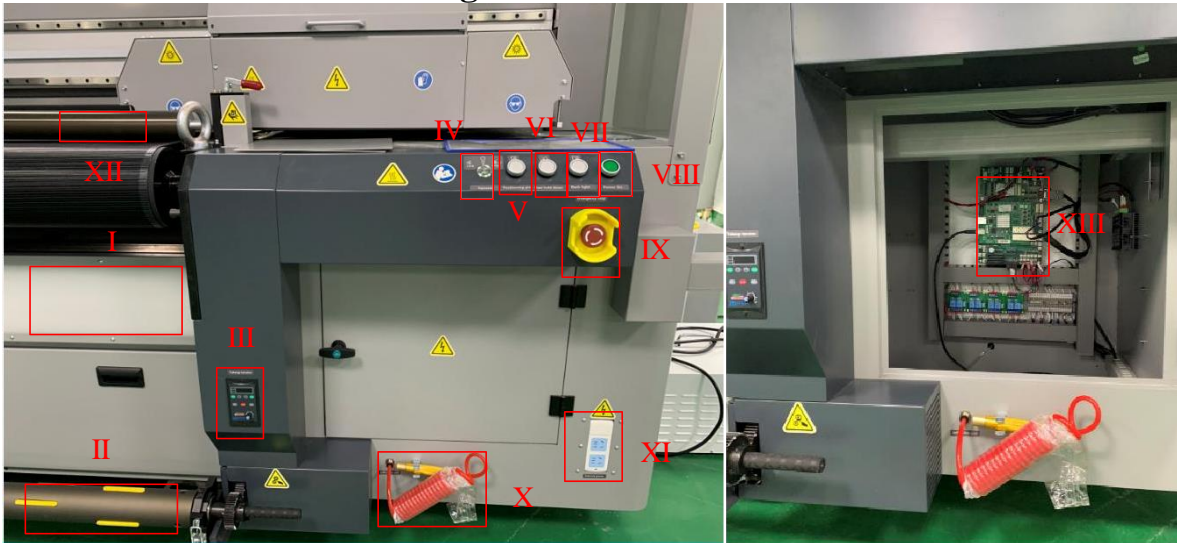
## 2.4 Connect air pressure to machine

Connect 0.7Mpa air pressure to machine air tubes slots with 8mm diameter air tube. There is 1 slots need connect, after connect it then pull out a little ensure air tube locked by slots



## 2.5 Machine Main parts annotations

## Side 1: machine Front side right



I. LED lighting bars for check backlit job

II. Collecting media Pneumatic Roller

II.I Speed adjuster for part II

IV. Print table vacuum switch button. 2 Levels adjustable

V. Positioning pin: Print rigid media location pin. (under machine beam, driver by air compressor)

VI. Rear hold down: Front side air pressure roller (Part XII) control up& down button (driver by air compressor)

VII. Back light: LED lighting bars (Part I) switch button

VIII. Power on: Machine power on switch

IX. Emergency stop button

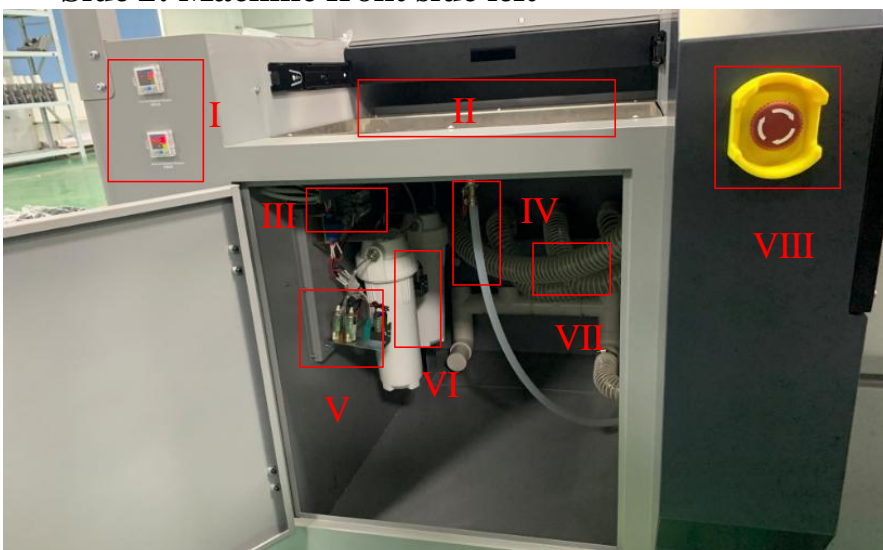
X. Special Air gun for Pneumatic Roller (Part II)

XI. 220V AC socket

XII. Front pressure roller

XIII. Machine main electronic board (use USB3.0 cable connect to operator computer )

## Side 2: Machine front side left



I. Color& White negative pressure meter

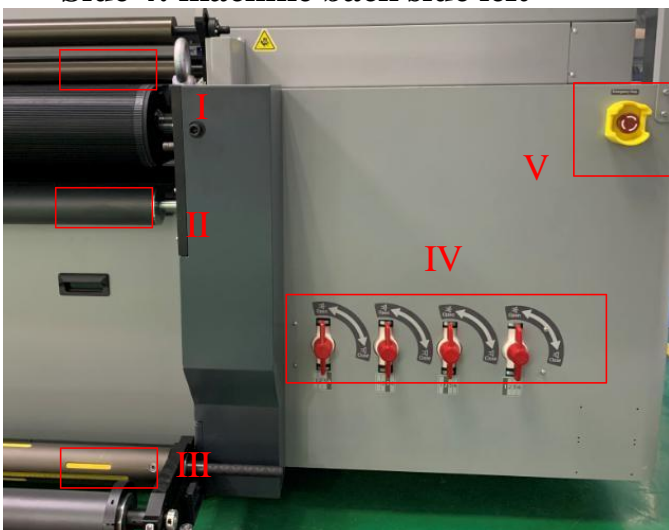
- II. Carriage maintenance station& waste ink tank
- III. Negative pressure electronic board
- IV. Waste ink tank cleaning tube
- V. Color& white Negative pressure pump
- VI. Color& white negative pressure store tank
- VII. Print table vacuum air tube
- VIII. Emergency stop button

**Side 3: machine left side**



- I. Main ink tank low ink Level alarm LED
- II. Main ink filter
- III. Ink supply pump
- IV. Ink supply electronic board
- V. Main ink tank
- VI. Air filter
- VII. White main ink tank circulation pump

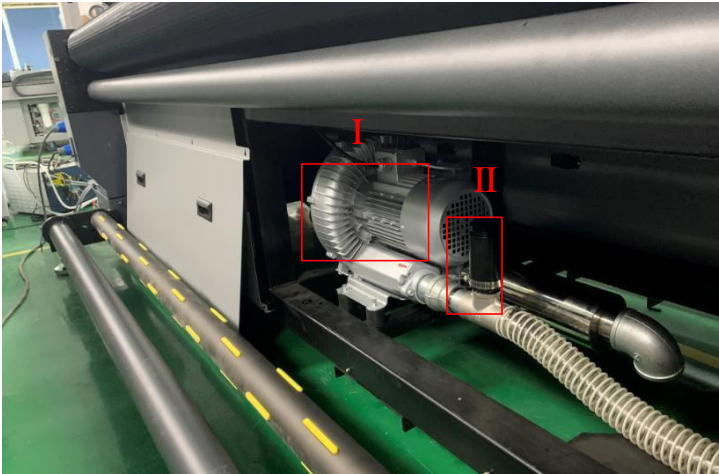
**Side 4: machine back side left**





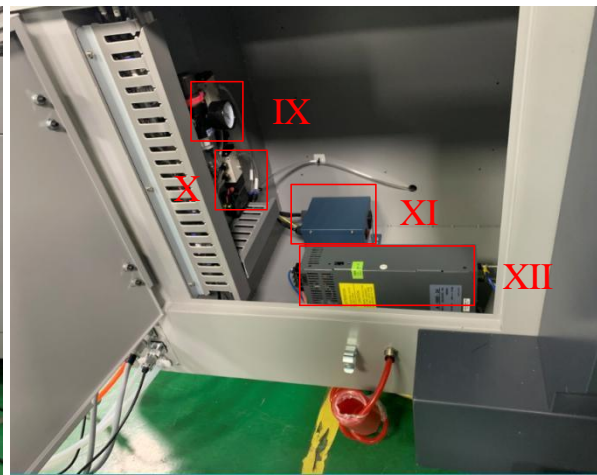
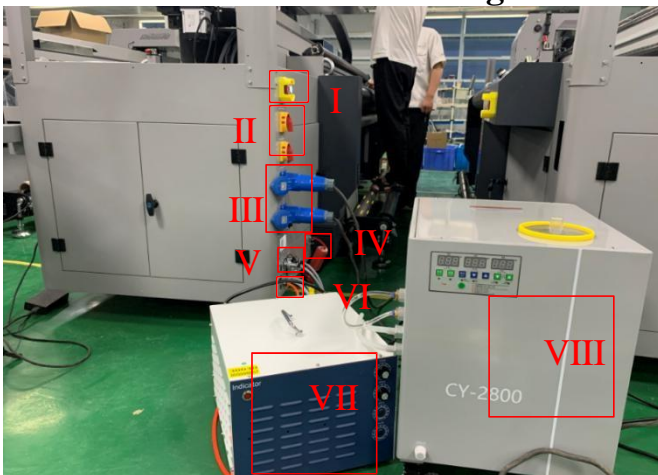
- I. Backside pressure roller
- II. Backside guide media roller
- III. Feeding media Pneumatic Roller
- IV. Table Vacuum zone switch
- V. Emergency stop button

**Side 5: machine backside**



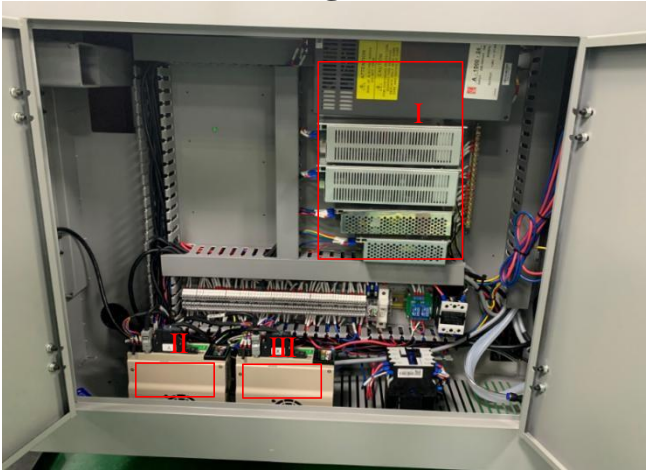
- I. Table vacuum big pump
- II. Table vacuum big pump release pressure valve

**Side 6: Machine backside right**



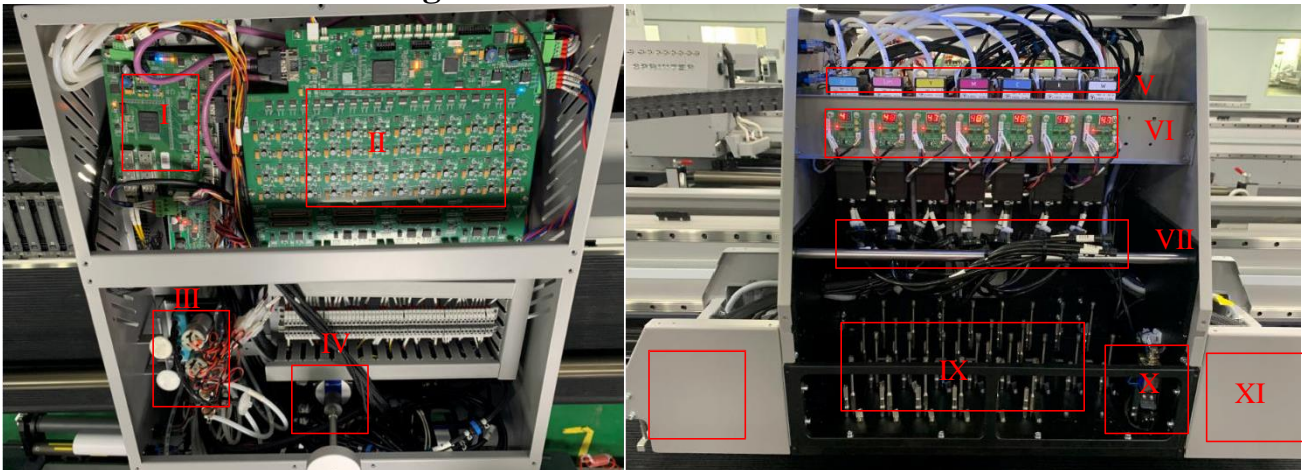
- I. Emergency stop button
- II. 220V AC Power switch
- III. 220V AC input
- IV. Special Air gun for Pneumatic Roller
- V. LED UV Lamp power cable connect to machine
- VI. Air compressor air tube connect to machine
- VII. LED UV Lamp power box
- VIII. LED UV Lamp cooling chiller
- IX. Air compressor air tube pressure meter
- X. Electronic valve for front and back pressure roller
- XI. Carriage anti-static bar power
- XII. 1000W 24V DC power box

### Side 7: Machine right Side



- I. 24V DC power box
- II. X servo driver
- III. Y servo driver

### Side 8: Machine carriage Side



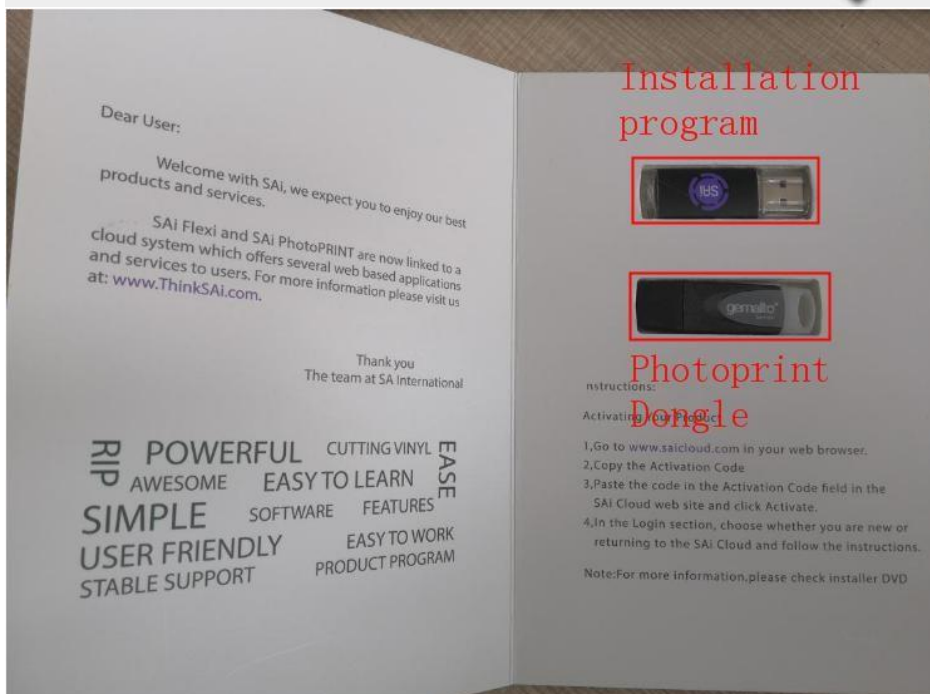
- I. Convert board
- II. Carriage board
- III. Positive pressure pump
- IV. Z height step driver motor
- V. Sub ink tank
- VI. Sub ink tank pre-heating control board
- VII. Disk filter
- VIII. Left LED UV Lamp, anti-static bar, anti-crash bar
- IX. Print head slots
- X. Carriage Auto height device
- XI. Right LED UV Lamp, anti-static bar, anti-crash bar

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## Chapter 3 Software install

### 3.1 Photoprint RIP software

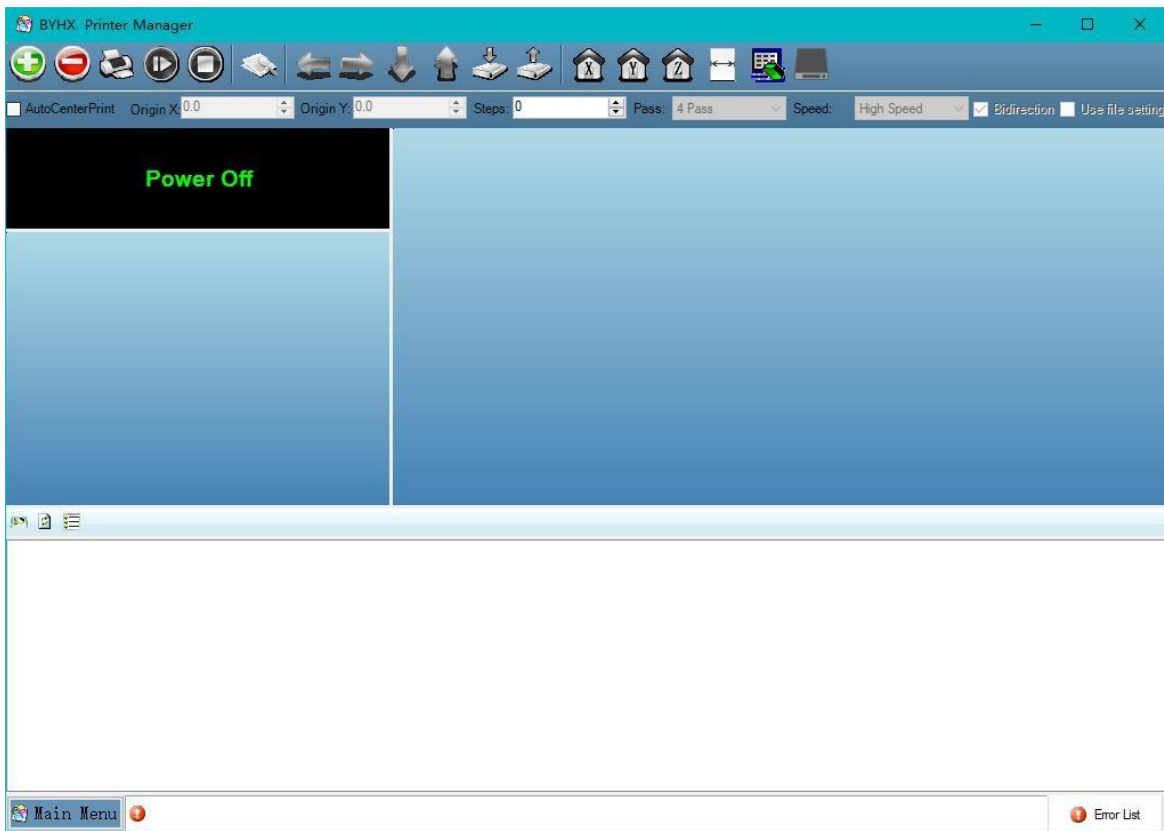
Sai Photoprint software used to process designed images to PRT format file, which will load by printing software. Sai Photoprint support file format: PDF (recommend), JPEG, PNG, EPS, BMP.etc



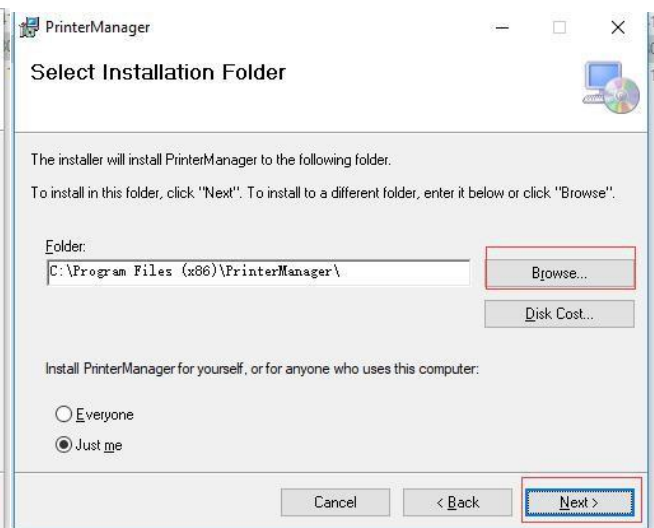
### 3.2 Printing software: print manger

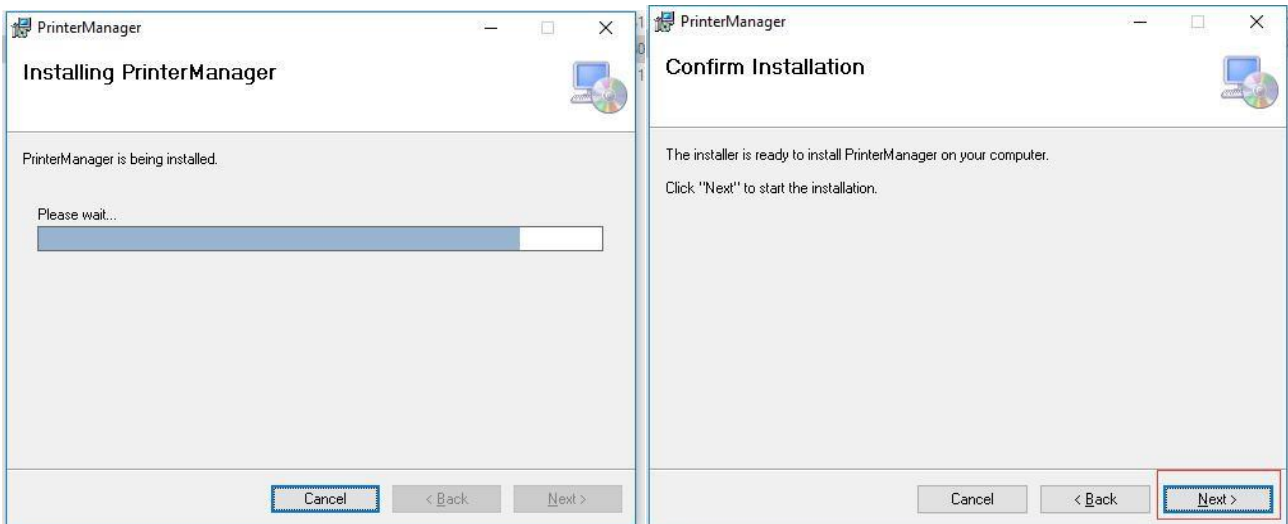
Print software will load PRT format files which processed by Photoprint software.

**Notice: Please use right software version. If not clear what version needed please contact ALLWIN local distributor engineer or contact with ALLWIN official engineer**



Name	Date modified	Type	Size
app	3/8/2013 11:58 AM	Icon	15 KB
Config	4/18/2018 6:25 PM	WinRAR ZIP 压缩...	171 KB
releasenote	4/20/2018 5:45 PM	Text Document	1 KB
setup	4/20/2018 5:43 PM	Application	418 KB
SetupPrinterManager	4/20/2018 5:43 PM	Windows Installer ...	26,807 KB
splash	9/12/2014 3:26 PM	PNG File	16 KB
Vender	11/18/2017 10:49 ...	XML Document	1 KB





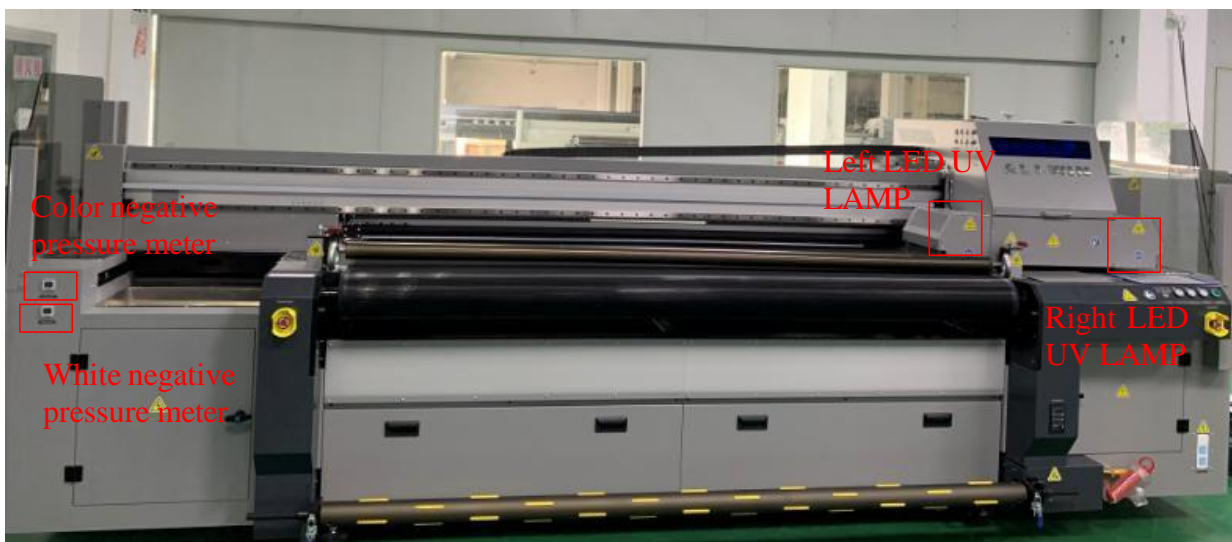
Last you get the software in Desktop



## Chapter 4 Trouble shooting

This chapter only list some trouble you will meet, if not clear what to do for fixing machine, please contact ALLWIN local distributor engineer or ALLWIN factory engineer

### 4.1 Ink keep drop from heads when machine power on

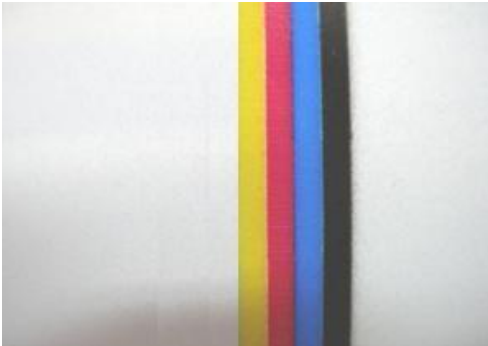


- I. Check if you open the ink valves
  - II. Check Negative pressure meter value
- The value normally from -3.2 to -5.5, if it near to 0 means machine lost negative pressure, need check the whole negative pressure system

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## 4.2 Nozzle Spray Effect

The picture as below shows Nozzle Spray Effect. There's various reason to happen this effect.



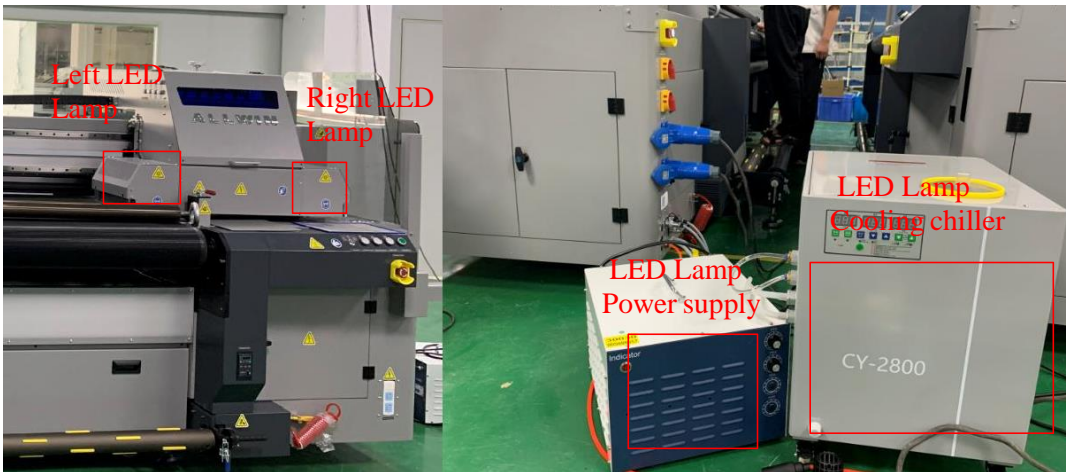
- Check your print height right or not, normally 1.5mm to 1.8mm (Reduce print height will get better performance)
- Check anti-statics device work or not, You can use alcohol to wipe media surface before you print

Check Room temp and humidity, Room temperature: 18 to 35 degrees, Room humidity: 35% to 65%

- Check head voltage and Temp in main menu/ Tools/ Real setting. Professional engineer can try adjust temp and voltage to save nozzle spray
- Check machine PE/ Ground wire
- Isolate printer from outside wind or other wind flow
- Clean head plate bottom (which near head surface), dirty dust will influence print quality

## 4.3 Ink not dry, looks glossy

UV ink need dry directly when printing, if not dry mostly cause by LED lamps which equip on machine carriage.



I. Check LED lamp lighting or not when machine printing

① Both side not lighting

- Check LED Lamp power supply running or not, 220V AC breaker situation
- Check Software setting. Main menu/ Tools/ UV setting

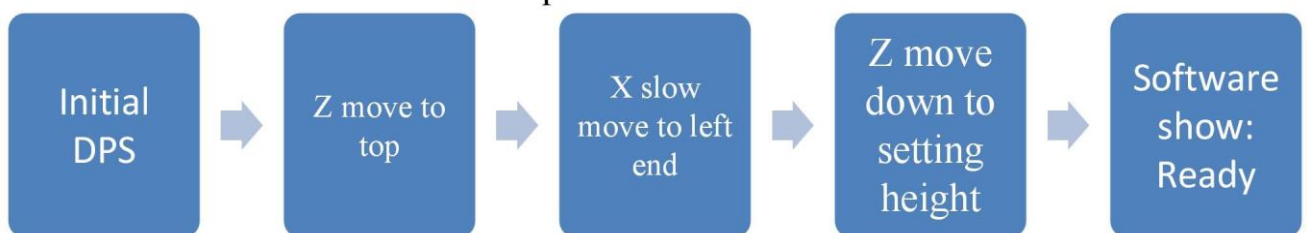
② One Lamp 30% not lighting

Exchange LED Lamp power supply box UV1 to UV2 (it directly connect to left/ right LED lamp).

- If problem move to different side means power supply box problem,
- If still same side LED lamp problem means LED lamp body or big power cable problem

#### 4.4 Machine can not initial

Power off machine, manual move Z to middle, X move to right 10cm (not and X right or left edge), Y move to backside 5cm (Not stop in front edge), then restart machine, check machine stuck in which initial step



#### Debug details:

❖ Initial DSP: basic electronic boards communication initial, if shows initial DPS fail: need enter hardware factory setting error or need update FW. (this need professional engineer to setting, please contact local agent engineer or ALLWIN factory)

❖ Z move to top: If not move, check Z step driver, step motor, Z max height limit sensor (you can manual touch limit sensor to skip the initial step)

❖ X slow move to left end: If stuck, check X Min limit sensor, X servo driver if gives error

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❖ Z move down to setting height: If not move, check Z bottom limit sensor (you can manual touch limit sensor to skip the initial step )

**Notice: If Z axis problems, you can manual help machine skip the initial step and make machine running and printing jobs before use. This need under professional engineer guide**

## 4.5 Software error list info

**Notice: If your machine get error in software, take photo and consult ALLWIN local distributor engineer or ALLWIN factory engineer. This will help you faster fix machine**

